

M 11 04 98  
29

B WHAT IS CLAIMED IS

~~CLAIMS~~

AMENDED SHEET

1. A service provisioning system for use in providing services in a distributed processing environment, said system comprising:

5 an input connected to a distributed processing environment for receiving a service request from an entity;

a response output connected to said distributed processing environment for providing a response to the entity;

10 processing means to process the service request and provide a response thereto; and

means to access an up-datable data store for storing parameter(s) indicative of the available capacity of the system to provide the service,

15 wherein the processing means is adapted to decide, substantially on the basis of data held in the data store, whether to provide a service, to propose conditions under which the system is willing to provide a service or to decline to provide a service.

2. A system according to claim 1, said system further comprising means for scheduling tasks/resources to provide a service.

20 3. A system according to <sup>claim 1</sup> ~~either one of the preceding claims~~, said system further comprising means for scheduling a component service to provide a requested service.

25 4. A system according to <sup>claim 2</sup> ~~either one of claims 2 or 3~~, wherein the processing means is adapted, in response to a failure by the scheduling means to schedule a task/resource or component service, to: reschedule the task/resource/component service; transmit a message to the entity that the originally requested service can only be provided under different conditions; relocate the service with another  
30 service providing entity; or indicate to the entity that this service cannot be provided.

*claim 1*

5. A system according to ~~any one of the preceding claims~~, wherein the processing means is adapted, in response to the inability of a resource or component service to be completed successfully, to: reschedule the tasks/service; transmit a message to the entity that the originally requested service can only be provided under different conditions; relocate the service with another service providing entity; or indicate to the entity that the service cannot be provided.

*claim 1*

6. A system according to ~~any one of the preceding claims~~, wherein the way in which the processing means is adapted to make a decision is that the processing means is adapted to process a service request by accessing one or more parameters in the data store, processing the request using the one or more parameters, and producing a response at the output, which response is selected from indications that

- a) sufficient capacity is available to provide the service;
- b) insufficient capacity is available to provide the service; and
- c) sufficient capacity is available to provide the service if modified, together with associated modifications.

*claim 1*

7. A system according to ~~any one of the preceding claims~~, comprising a control output connected by said distributed processing environment to one or more tasks and/or resources required to provide the service.

8. A system according to claim 7, wherein the processing means is adapted to receive data from the tasks and/or resource(s) for use in updating the data store.

9. A system according to claim 8, wherein said data includes task/resource performance and/or task/resource status data.

*claim 1*

10. A system according to ~~any one of the preceding claims~~, comprising a request output connected to said distributed processing environment for requesting a component service from another entity.

11. A service provisioning system, said system comprising means for negotiating with another entity, in response to a request from said other entity, to provide a service and means for accessing one or more resources available for use by the system to provide a service, said negotiating means including data about  
5 said system relating to a measure of the current system capacity to provide a service, and being arranged to negotiate substantially on the basis of said data to provide a service in response to a request.
12. A system according to claim 11, comprising means to update said  
10 information on the basis of the past performance of the system.
13. A system according to either claim 11 or claim 12, comprising means to schedule resource(s) for use by the system necessary to provide a service.
14. A system according to claim 13, comprising means to initiate the  
15 negotiating means to re-open negotiation with the entity which requested the service in the event one or more resources cannot be scheduled.
15. A system according to <sup>claim 1</sup> ~~any one of the preceding claims~~, arranged to  
20 provide more than one instance of a service, and/or of a negotiation for a service, to one or more requesting entities concurrently.
16. A system according to <sup>claim 1</sup> ~~any one of the preceding claims~~, further comprising  
25 a data store containing data relating to the services offered by the system and to one or more entities which have an interest in receiving information relating to enactment of one or more of said services, means to access said data store in response to a service request and establish that information should be transmitted to one or more of said entities and means to transmit said information to said  
30 entities.
17. A system according to claim 16, wherein said means to transmit are operable in the absence of a specific request to transmit the information from the entities.

18. <sup>claim 1</sup> A distributed computing environment comprising plural systems according to ~~any one of the preceding claims~~ connected by a communications network, wherein at least one of said systems is arranged to provide more than one instance of a service, or of a negotiation for a service, to one or more requesting systems  
5 concurrently.

19. A distributed computing environment according to claim 18, wherein each of said systems is associated with one of a plurality of organisations, said organisations together defining a virtual organisation.  
10

20. A distributed computing environment according to claim 19, wherein the virtual organisation exists for a pre-determined period.

21. A method of business process enactment, said method being implemented  
15 in a distributed computing environment including at least one service provider and at least one service requester, said service provider comprising an input to receive a request from the or any service requester within said environment, an output to provide a response to said service requester, processing means to process said request to determine the nature of said response, means to access an up-datable  
20 data store for storing parameters indicative of the present capacity of the service provider to provide the service, and a control output to one or more resources in the environment available for use by said service provider, wherein the processing means is adapted to determine the nature of said response on the basis of the data stored in the data store.

22. A method according to claim 21, wherein, in the event a service provider and a service requester agree a contract to provide and accept a service respectively, a copy of the contract is stored as a data structure representing the terms and conditions of the contract by both the service provider and the service  
30 requester.

23. A service provision system for use in distributed processing environments, said system comprising:  
an input for receiving a service request;

service request processing means for identifying component processes for use in provisioning the requested service;

negotiation means for use in establishing conditions applicable to provision of those component processes;

5 means to access an up-datable data store for storing conditions when established; and

an output for providing a response to the service request, said response comprising an indication of availability of the requested service;

10 wherein the processing means is adapted to process a service request by accessing one or more of the conditions in the data store, processing the request using the one or more conditions, and producing said response.

24. A system according to Claim 23 wherein one or more of said conditions  
15 may have an associated expiry time for storage in the data store.

25. A system according to Claim 24 wherein the processing means is adapted to detect an expired or absent condition in the data store, which condition is applicable to a component process for the provision of a requested service, and to  
20 trigger the negotiation means to establish a substitute condition.

*claim 23*  
26. A system according to ~~any one of Claims 23 to 25~~ which further comprises initiation means to initiate one or more component processes in provision of a requested service.

25  
27. A system according to Claim 26, wherein provisioning a requested service requires provision of a selected set of component processes and wherein the negotiation means establishes and stores a set of conditions, applicable to provision of the component processes of the selected set, and wherein the  
30 processing means is adapted to process a service request by accessing the stored set of conditions in the data store, processing the request using said stored set, and producing said response.

ADD A9  
- Add E1